

EMERGENCY AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

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DATE: July 16, 2003
AD #: 2003-15-51

Send to all U.S. owners and operators of Eurocopter France (Eurocopter) Model SE3160, SA315B, SA316B, SA316C, and SA319B helicopters.

This Emergency Airworthiness Directive (EAD) is prompted by a report from the main rotor blade (blade) manufacturer of a cracked blade, which was discovered on May 27, 2003. The cause of the crack is unknown at this time, however investigation indicates that the crack may be attributable to a quality control system problem. The unsafe condition, if not detected, could result in failure of a blade and subsequent loss of control of the helicopter.

The FAA has reviewed Rotor Trends, LLC Service Bulletin No. 01.03, dated July 9, 2003, which describes procedures for initial and repetitive inspections of the blade root end bolts (bolts) and bolt holes for a crack or corrosion using a 10x magnifying glass and light. A one-time pull test on the blade root end fittings (fittings) and blade root end doublers (doubblers) to detect disbonding is also described. If a crack is found on a blade fitting or in a bolt hole, or if any corrosion is found in a bolt hole or radiating from a bolt hole, or if disbonding is detected in the blade fittings or doublers, removing the blade and replacing it with an airworthy blade is specified. If corrosion is detected only on bolts, replacing the affected bolts with airworthy bolts is specified.

The unsafe condition previously described is likely to exist or develop on other helicopters of the same type design with a blade installed that was produced under a Parts Manufacturer Approval approved by Supplemental Type Certificate SH778GL. Therefore, this AD requires, for blades, part number (P/N) L3160-100-01 (all serial numbers), within 10 hours time-in-service (TIS) or 30 days, whichever occurs first, inspecting the blade bolts and bolt holes for a crack or corrosion using a 10x or higher magnifying glass and light. If a crack is found on a blade fitting or in a bolt hole, or if any corrosion is found in a bolt hole or radiating from a bolt hole, removing the blade and replacing it with an airworthy blade is required. If corrosion is detected only on bolts, replacing the affected bolts with airworthy bolts, P/N NAS1105, is required. This AD also requires, for blades, P/N L3160-100-01, serial numbers 600 through 671, within 50 hours TIS or 90 days, whichever occurs first, a one-time pull test on the blade fittings and doublers to detect disbonding. The actions must be accomplished in accordance with the service bulletin described previously.

This rule is issued under 49 U.S.C. Section 44701 pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this emergency AD.

2003-15-51 EUROCOPTER FRANCE: Docket No. 2003-SW-34-AD.

Applicability: Model SE3160, SA315B, SA316B, SA316C, and SA319B helicopters, with main rotor blade (blade), part number (P/N) L3160-100-01, produced under a Parts Manufacturer Approval approved by Supplemental Type Certificate SH778GL, installed, certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To prevent failure of a blade and subsequent loss of control of the helicopter, accomplish the following:

(a) For helicopters that have a blade, part number (P/N) L3160-100-01 (all serial numbers), installed, within 10 hours time-in-service (TIS) or 30 days, whichever occurs first, using a 10x or higher magnifying glass, visually inspect each blade root end bolt (bolt) and bolt hole for corrosion in a bolt hole or radiating from a bolt hole, or for a crack on a blade root end fitting (fitting) or in a bolt hole, in accordance with Part A of Rotor Trends, LLC Service Bulletin No. 01.03, dated July 9, 2003 (SB).

(b) If corrosion or a crack is found, replace the blade with an airworthy blade before further flight. If corrosion is detected only on a bolt, P/N NAS1105, replace the affected bolt with an airworthy bolt before further flight.

(c) For helicopters that have a blade, P/N L3160-100-01, serial numbers 600 through 671, installed, within 50 hours TIS or 90 days, whichever occurs first, conduct a one-time pull test on each fitting and blade root end doubler to detect disbonding in accordance with Part B of the SB, except that you are not required to contact or return a form to Rotor Trends, LLC.

(d) If disbonding is detected, replace the blade with an airworthy blade before further flight.

(e) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Los Angeles Aircraft Certification Office, Transport Airplane Directorate, FAA, for information about previously approved alternative methods of compliance.

(f) Special flight permits will not be issued.

(g) Copies of the applicable service information may be obtained from Rotor Trends, LLC, 1715 N. Pinal Avenue, Casa Grande, Arizona 85222, telephone: (520) 421-7482, fax: (520) 421-7458, Email: jmp@helisupport.com.

(h) **Emergency AD 2003-15-51, issued July 16, 2003, becomes effective upon receipt.**

FOR FURTHER INFORMATION CONTACT: Jon Mowery, Aviation Safety Engineer, FAA, Los Angeles Aircraft Certification Office, Airframe Branch, 3960 Paramount Blvd., Lakewood, California 90712, telephone (562) 627-5322, fax (562) 627-5210.

Issued in Fort Worth, Texas, on July 16, 2003.

Kim Smith,
Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.